AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A method for assaying activation state of platelets comprising:

(a) ~~providing~~ reacting a mixture comprising said platelets, a prothrombin-converting enzyme and a substrate of said prothrombin-converting enzyme to produce a product; and

(b) assaying ~~a~~ the product produced in step (a), said product having ~~the~~ a property that said product does not activate platelets,

thereby assaying the activation state of said platelets.

2. (Previously presented) The method of claim 1 wherein said substrate is a modified prothrombin and said product is a modified thrombin.

3. (Previously presented) The method of claim 2 wherein assaying said modified thrombin comprises assaying a catalytic activity of said modified thrombin.

4. (Currently amended) The method of claim 1 wherein said prothrombin-converting enzyme is exogenous to said platelets.

5. (Previously presented) The method of claim 2 wherein said modified prothrombin comprises prothrombin which is chemically derivatized by the addition of one or more chemical groups selected from the group consisting of an acyl group, an acetyl group, a succinyl group, a maleyl group, a polyethylene glycol group, an acetylated polyethylene glycol group, a pyridoxal 5'-phosphate group and a dichlorotriazinylaminofluorescinyl group.

6. (Previously presented) The method of claim 5 wherein said modified prothrombin comprises prothrombin which is chemically derivatized by the addition of an acetyl group wherein the acetyl group is donated by sulfo-N-succinimidyl acetate.

7. (Previously presented) The method of claim 2 wherein said modified prothrombin is a product of an allele of a prothrombin gene selected from the group consisting of *Metz* and *Quick I*.

8. (Currently amended) The method of claim 2 [[3]] wherein said assaying activity of said modified thrombin comprises an assay selected from the group consisting of a Western blot, an Enzyme Linked ImmunoSorbent Assay, an immunodiffusion assay, a surface plasmon resonance assay, and a fluorescence proximity assay.

9-10. (Canceled)

11. (Previously presented) The method of claim 3 wherein said assaying catalytic activity comprises detecting cleavage of a peptide.

12. (Previously presented) The method of claim 11 wherein the peptide is glycyl-L-prolyl L-arginine wherein the amino terminal end of the peptide is linked to a tosyl group and the carboxyl terminal end of the peptide is linked to a p-nitroanilide group.

13. (Currently amended) A kit for assaying activation state of platelets comprising:

(a) a substrate of a prothrombin-converting enzyme, said substrate having ~~the~~ a property that when said substrate is converted by said prothrombin-converting enzyme to a product, said product does not activate platelets; and

(b) an assay of said product,

wherein said assay indicates the activation state of said platelets.

14. (Previously presented) The kit according to claim 13 wherein the assay of said product is selected from the group consisting of a Western blot, an Enzyme Linked ImmunoSorbent Assay (ELISA), an immunodiffusion assay, a surface plasmon resonance assay, a chromogenic peptide cleavage assay, a polyacrylamide gel electrophoresis analysis, and a fluorescence proximity assay.

15. (Previously presented) The kit of claim 13 wherein the substrate is prothrombin which is chemically derivatized by the addition of one or more chemical groups selected from the group consisting of an acyl group, an acetyl group, a succinyl group, a maleyl group, a polyethylene glycol group, an acetylated polyethylene glycol group, a pyridoxal 5'-phosphate group and a dichlorotriazinylaminofluorescinyl group.

16. (Previously presented) The kit of claim 13 wherein substrate is a product of an allele of a prothrombin gene selected from the group consisting of *Metz* and *Quick I.*

17. (Previously presented) The kit of claim 13 wherein the assay of said product comprises reagents for a chromogenic peptide cleavage assay wherein the reagents comprise a peptide having a sequence cleaved by thrombin.

18. (Previously presented) The kit of claim 17 wherein the peptide is glycyl-L-prolyl L-arginine wherein the amino terminal end of the peptide is linked to a tosyl group and the carboxyl terminal end of the peptide is linked to a p-nitroanilide group.

19. (Previously presented) The kit of claim 13 further comprising one or more reagents selected from the group consisting of human thrombin, calcium ionophore A23187, factor Xa, Sulfo-N-succinimidyl acetate, factor Va and phospholipid vesicles comprising phosphatidylserine and phosphatidylcholine.

20. (Original) The kit of claim 13 further comprising one or more components selected from the group consisting of a glass vial, a microtiter plate, water and a syringe.